ABSTRACT

A clock and data recovery (CDR) device is disclosed that is capable of recovering a clock signal from a data signal that has a variable data rate. The CDR device includes a reference clock generating section for dividing a basic clock by a first predetermined value P, synchronizing the clock and multiplying the clock by a second predetermined value Q to generate a reference clock corresponding to the variable data rate; a clock and data recovery section for receiving the transmitted data, recovering a clock and data from the received data and outputting the recovered clock and data; and a control section for generating a control signal according to the variable data rate and sending the signal to the reference clock generating section and the clock and data recovery section.